helo
GENUINE SAUNA & STEAM

Installation and User's Manual **Helo T2**

CONTROL CENTRE RA – 28 (T2)

314 SYRA 67-3 C

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1. General

1.1 Check the following before taking a sauna bath

1. The sauna room is in an appropriate condition for taking a sauna bath.
2. The sauna room door and the window are closed.
3. The sauna heater is topped with stones that comply with the manufacturer's recommendations; the stones cover the heating elements; the stones are piled in the sauna heater leaving copious amounts of space in between.
4. Temperatures approaching 70°C assure a pleasant, smooth sauna bath experience.

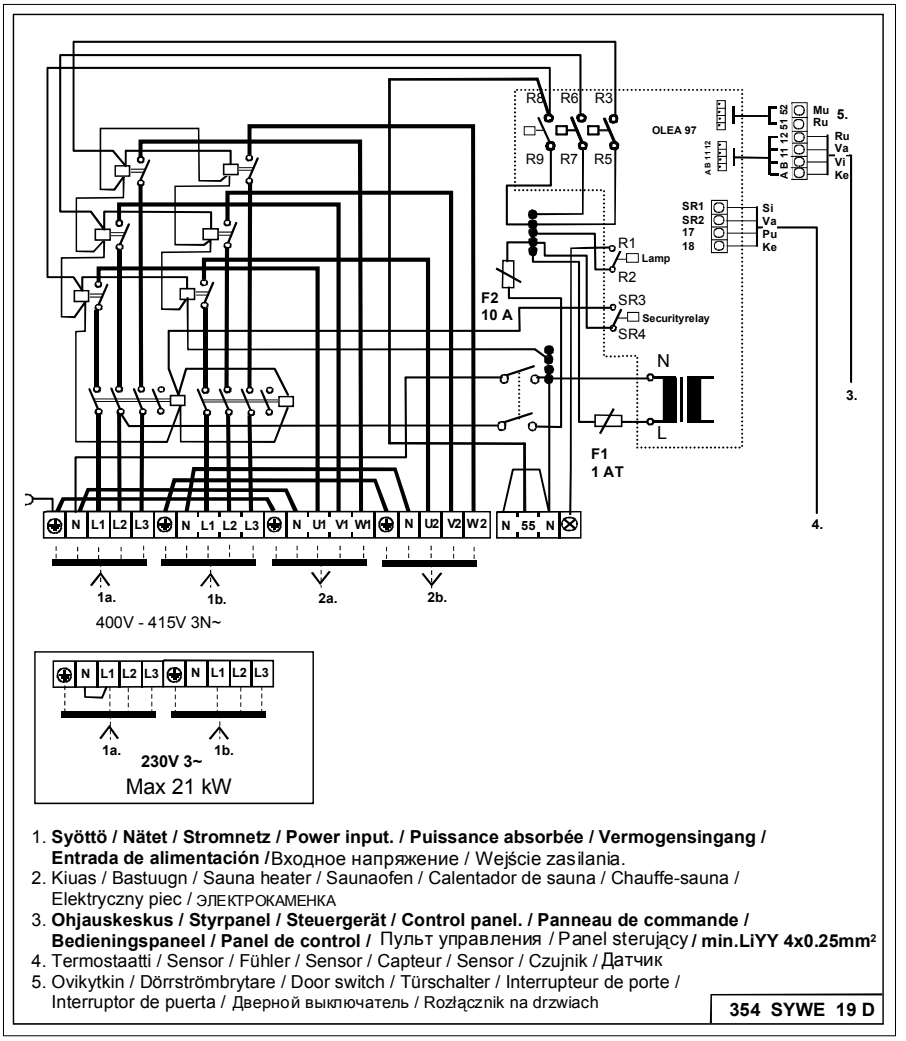
1.2 General information on the control panel

Control centre 1601 – 28 (T2) and contactor case 2005 – 14 (WE – 14) can be used with the following sauna heaters:

- SKLE - …. 1105 - ….
- SKLA - …. 1112 - ….

The Contactor case should be installed outside the sauna room. The cables should be installed using the protocols for permanent installation. A split box with a semi-permanent installation into the sauna heater should be attached inside the sauna room. Caution: not adhering to the minimum distances indicated in the Installation manual may cause a fire hazard.
To ensure that that it is in an appropriate condition for bathing, always check the sauna room before switching on the sauna heater.

2. Connection diagram



1. **Syöttö / Nätet / Stromnetz / Power input. / Puissance absorbée / Vermogensingang / Entrada de alimentación /** Входное напряжение / Wejście zasilania.
2. Kiuas / Bastuugn / Sauna heater / Saunaofen / Calentador de sauna / Chauffe-sauna / Elektryczny piec / ЭЛЕКТРОКАМЕНКА
3. **Ohjauskeskus / Styrpanel / Steuergerät / Control panel. / Panneau de commande / Bedieningspaneel / Panel de control /** Пульт управления / Panel sterujący **/ min.LiYY 4x0.25mm²**
4. Termostaatti / Sensor / Fühler / Sensor / Capteur / Sensor / Czujnik / Датчик
5. Ovikytkin / Dörrströmbrytare / Door switch / Türschalter / Interrupteur de porte / Interruptor de puerta / Дверной выключатель / Rozłącznik na drzwiach

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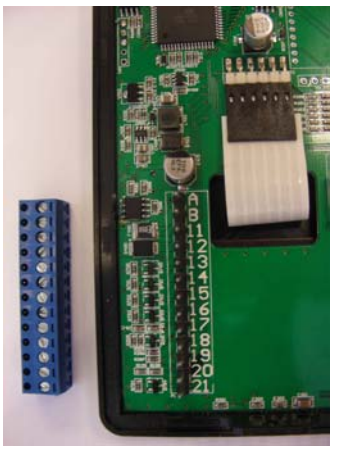
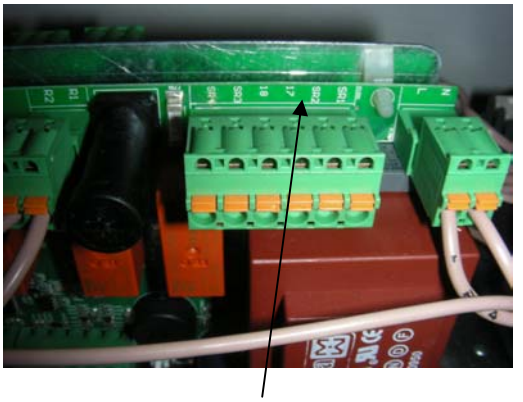
2.1 Connecting the control cables and the circuit board

NOTE: The cable connecting the Contactor case WE-14 to the Control centre must be screened, e.g. LiYY 4 x 0.25mm². Maximum length of the cable is 50m.

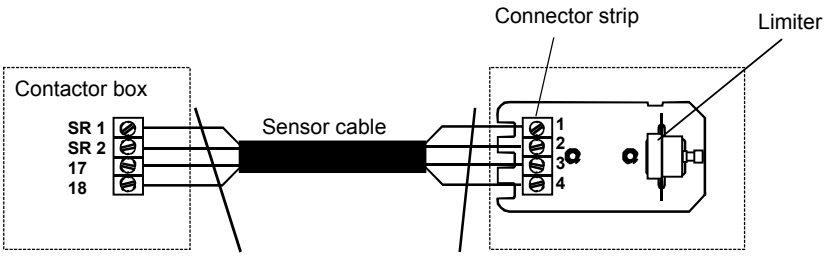


Connecting terminal markers A, B, 11 and 12 of the Control panel T2

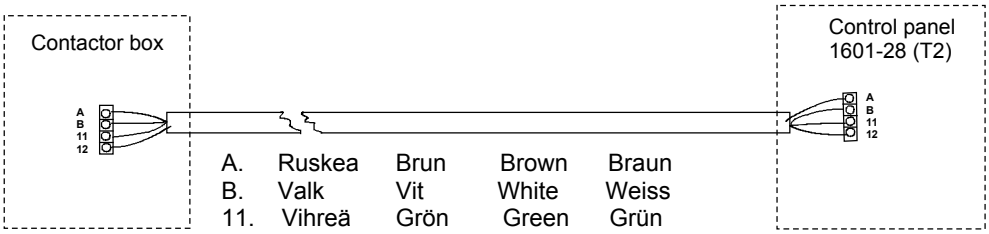


Sensor markers SR1 and SR2 as well as 17 and 18 of the circuit board

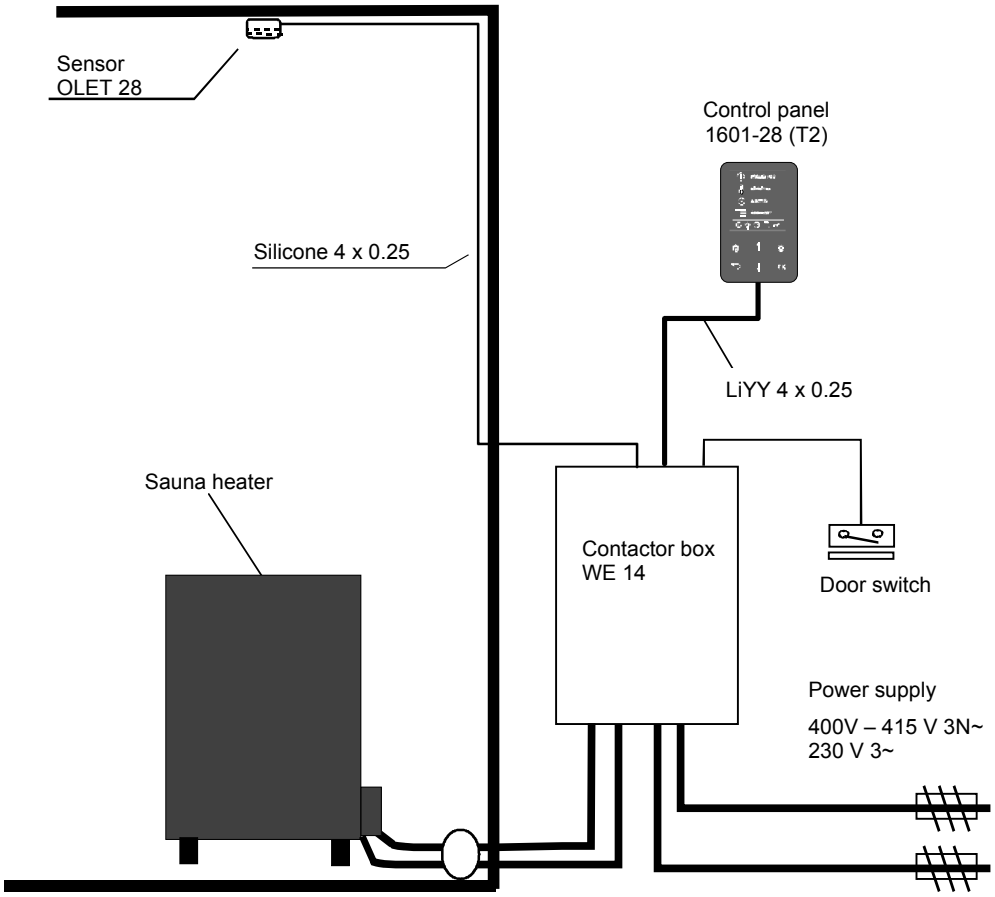
3. Basic schematic of the terminal connections and the installation



SR 1. Blue	1. Blue
SR 2. White	2. White
17. Red	3. Red
18. Yellow	4. Yellow



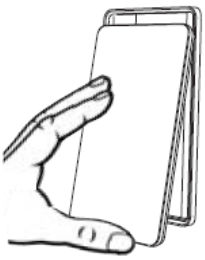
A.	Ruskea	Brun	Brown	Braun
B.	Valk	Vit	White	Weiss
11.	Vihreä	Grön	Green	Grün
12.	Kelt	Gul	Yellow	Gelb



4. Installation and use of Control panel T2

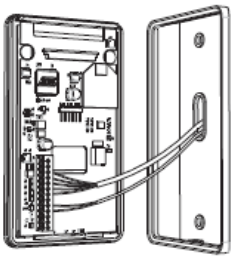
Control panel RA28 (T2)

Open the screw at the head of the control panel.



Remove the control panel frame and lid.

Install the bottom piece for the control panel.
NOTE! If the control panel is installed in a humid place, use the provided seal.

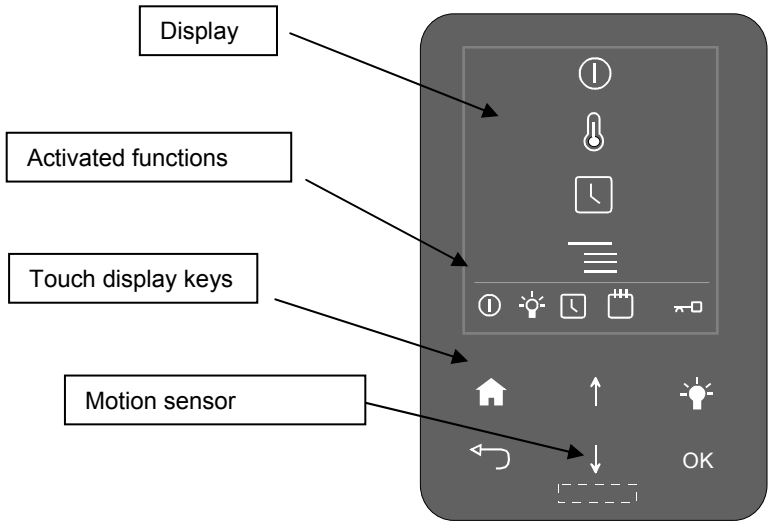


Install and connect the cable.
For connecting instructions, see page 10.

Control panel dimensions:

- Height 140 mm
- Width 80 mm
- Depth 22 mm

4.1 Control panel T2



Screen symbols explained:

Start and stop.

Sauna room temperature setting. Value 60–110°C.

24h timer and calendar timer. The 24h timer can be pre-set 0–24 hours in advance to turn on the sauna heater.

Settings. For setting the language, time display, maintenance, etc. information.

Activated symbols explained:

Sauna heater ON / Sauna-is-ready indicator ON

Sauna room lighting control ON. Can be turned on temporarily or for the period of the sauna use.

Sauna heater 24h timer ON.

Calendar timer ON.

Key lock ON. The locking is released by pressing the "HOME" and "RETURN" keys simultaneously for about 2 seconds.

Key functions:

OK Choose a function / Accept the function.

Activate sauna lighting.

Move up the menu / Increase the setting value

Move down the menu / Decrease the setting value

"HOME" key. Brings you back to the front page.

"BACK" key Brings you one step back in a sub-menu.
When pressed on the front page, shows the temperature, the time and the date.

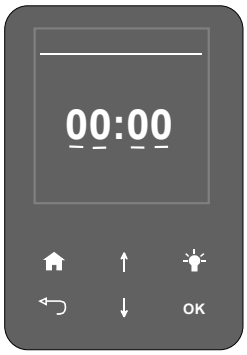
4.2 Control panel functions:

General

- The control panel is intended for installation outside the sauna room.
- Maximum bathing time in monitored facility use is 18 hours. With timer control the maximum time is 12 hours, after which there is a compulsory 6 hour break. The control panel gives an error message if 12 hours is exceeded. The pause period can be reset from the control panel separately, for instructions see Settings – Service – Settings – Reset pause timer. In private use the maximum on time for the sauna heater is 6 hours.
- The available pre-set period for the 24h timer is 24 hours.
- The control panel includes also a calendar function that can be used to turn the sauna heater ON on certain days and at certain times. However, this function should not be utilized in monitored institutional use conditions.
- There is a motion sensor in the front of the control panel. If the control panel senses no movement, it switches to the screen saver mode to save energy. The activated functions will stay on.
- The control panel is equipped with a key lock to prevent the misuse of the panel.
- In accordance with the applicable regulations on electrical devices, only a qualified professional is allowed to connect the sauna heater and the control panel to the power mains.
- In accordance with the regulations concerning the sauna heaters, a door switch must be installed for use in unsupervised conditions to prevent the remote switching on of the sauna heater (the calendar timer or the 24h timer) while the sauna room door is open.

First time starting up / Restoring the factory settings:

Select the geographic region where the sauna heater is used. After this,
select the appropriate language from the menu using the arrow keys and press OK.



Next, set the time and the date. After each number selection, press OK.

Next, select the intended use of the sauna heater. Your choices are:

- **Supervised facility**. Supervised conditions in a facility, such as an indoor swimming pool,spa or health resort. The maximum ON-time for the sauna heater is 18 hours.
  The timers (calendar, 24h) are not available for turning on the sauna heater
- **Time controlled**. Pre-set time to turn on the sauna heater. The maximum ON-time for the sauna heater is 12 hours. The timers (calendar, 24h) are available for turning on the sauna heater.
- **Private sauna** use. Maximum on time for the sauna heater is 6 hours.
  Using pre-set timer is possible. Using calendar timer is not possible.

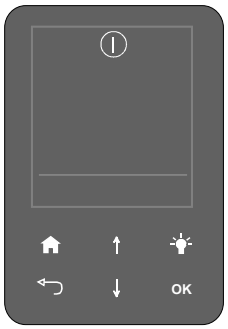
Next, choose the length of the sauna bathing time. The selected ON-period for the sauna heater may be maximum allowed or less, in other words, 0–18 hours, 0–12 hours or 0–6 hours, depending on the type of use

Next, choose the use of the door switch. According to the electric device regulations, a Door switch must be installed and switched ON in circumstances where the sauna heater can be turned on remotely and/or on a timer, and where no pre-checking of the sauna is performed. Before the remote use, as indicated above, is possible, the door of the sauna room must be closed and the appropriate option checked in the control panel as needed. This will make it possible to turn on the sauna heater.

The door switch can be utilized also in supervised institutional and in private use.

Basic mode:

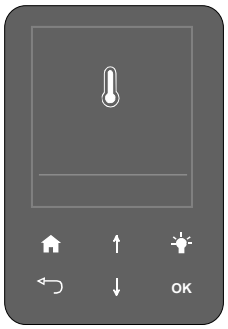
In its basic mode, the control panel's screen is off. As the control panel senses an object e.g. a hand) less than 50mm from its front surface, the screen activates automatically. Removal of the object causes the screen to revert to its energy saving mode, after a designated period. The period to the screen turn-off can be adjusted to a value between 10 seconds and 5 minutes (see selection: Settings – General – Period to turn-off).



Turning on the sauna heater:

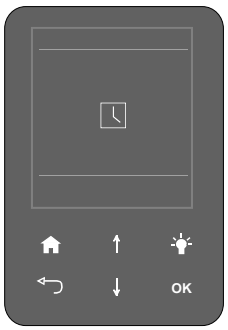
The sauna heater can be turned on by choosing the START/STOP icon on the front page (default) and pressing OK. This will cause the sauna heater to raise the temperature to the one indicated in the control panel memory. Also, the heating will last the period indicated in the control panel memory. Changing the target temperature – see below. The sauna heater stays on for the period indicated in Settings – Maintenance – Settings – Bathing time limit. The sauna heater can be turned off any time by pressing OK while on the front page.

Pressing "RETURN" while on the front page will bring up the date and time as well as the sauna room temperature.



Setting the sauna room temperature:

To set the desired sauna room temperature, choose the front page icon that is the second from the top and press OK. The temperature on the screen is changed by pressing the up or down arrows. Accept the temperature chosen by pressing OK. You can set a limit to the allowed temperatures of the sauna room by going to Settings – Maintenance (code 124) – Settings – Temperature limit
Available values: 60°C–110°C.

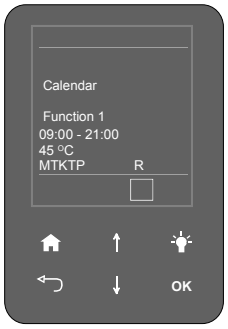


Timers:

The sauna heater can be pre-programmed in two different ways: Using the calendar timer (calendar) or the 24h timer (timer). They are chosen from the menu: Timer – Calendar or timer. In the calender timer, you can program sauna bathing schedules for different days of the week.

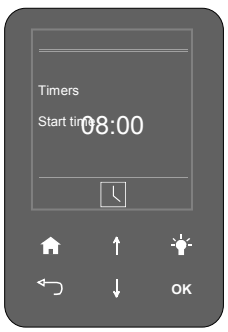
Calendar timer:

1/6 setting the starting up time
2/6 setting the switching off time
3/6 setting the temperature
4/6 setting the type of function, On = Sauna heater starts with a set target temperature.
Standby = The sauna heater raises the temperature to a setting that is lower than the target temperature. The lower standby temperature is set using the menu: Settings – Sauna – Standby; value 0 – 20°C.. The screen shows an S (for standby). next to the R (Run). As long as the Standby is active, the standby symbol is shown at the bottom of the screen.
5/6 setting the desired days of the week
6/6 setting up a repeat, either by week or by month
Finally, the Calendar shows "Function 1", the chosen times and days as well as the set temperature; also, the calendar icon appears at the bottom of the screen.



The 24h timer:

Setting the time for the sauna heater to turn on. The sauna heater will stay on until the maximum time set by the control panel is reached. For this period, it will maintain the temperature set by the control panel.
The sauna heater can be switched off earlier using the OK-key or by pressing the ON/OFF button if one has been installed.



Settings

The control panel has the following sub-menus:

Sauna

¤ **Standby**. The standby temperature can be set 0–20°C below the target temperature. The standby temperature can be used also if a sauna user prefers a lower sauna room temperature; after this user, the temperature can be raised back up to the target temperature. This property can be applied only through the calendar function.

General

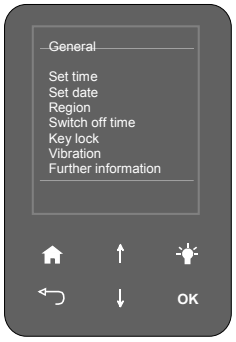
¤ **Set time**. The time of day is set by pressing either of the arrow keys until the correct number appears. Confirming the choice by pressing OK allows the next number to be chosen.

¤ **Set Date**. When the correct year is chosen press OK. Now the month can be set; press OK to confirm. Finally choose the day of the month and press OK.

¤ **Region**. Choose the language using this menu. 10 different language choices can be found in this menu. Press OK after finding the language of your choice.
You can choose either the Celsius (°C) or Fahrenheit (°F) temperature scale.
Also, you can choose either a 24 hour or a 12 hour clock.

¤ **Switch off Time.** Set the control panel screen switch off time, time can be set between 10 sec and 5 min. After making your choice, press OK.

¤ **Key Lock.** Slow down. Can be set between 10 sec and 5 min after the last touch of the control panel. Activate by pressing OK.
Unauthorized use of the control panel can be prevented by setting a coded key lock. The factory code is 0000. The code can be changed by choosing first the current code and then feeding the new code, each number followed by the OK key.
The coded key lock can be activated from Coded key lock, No or Yes, followed by OK..



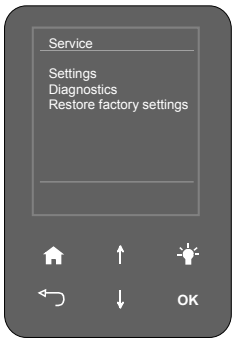
¤ **Vibration.** The purpose of this function is to make using the menus easier: the vibration emphasizes the settings choices and confirms that an appropriate key has been pressed. Select Yes or No and confirm with OK..

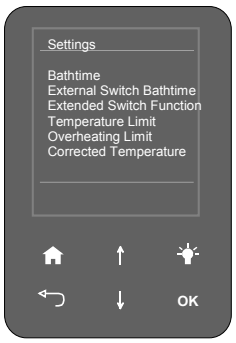
¤ **Further Information.** The control panel serial number and the version number of the equipment software are shown.

Service

¤ **Service**. You can enter the service menu with the code 124.

¤ Under the **Settings** menu there are the following submenus.
Bathing time limit. Set the maximum time for the sauna heater on time, monitored facility 1 min – 18 hours, Timer controlled facility, setting 1 min – 12 hours.
Note! In private use 1 min – 6 hours. After every number selection press OK.
Switch for extending the bathing time. On / Off remote start push button must be connected. You can set the maximum on time for using the On / Off push button.
External control. Remote start On / Off push button use selection. On / Off use. Sauna heater use can be controlled with the On / Off push button.
Extend the bathing time. You can extend the time selected with the On / Off push button, at most up to the maximum time set with the controller.
Please refer to section Switch for extending the bathing time.
Temperature limit. Set the maximum temperature for the sauna, setting 60 – 110 °C.
Overheating limit. Temperature limit setting for the circuit board controlling the sauna heater.
Setting 50 – 85 °C. Activate / Deactivate. When overheating limit is set on or off.
Corrected temperature. Select No, if you want to see the real time temperature or select Yes to see the average temperature.
Reset pause timer. The 6 hour pause period can be reset and start a new 12 hour on and 6 hour pause cycle for the sauna heater.





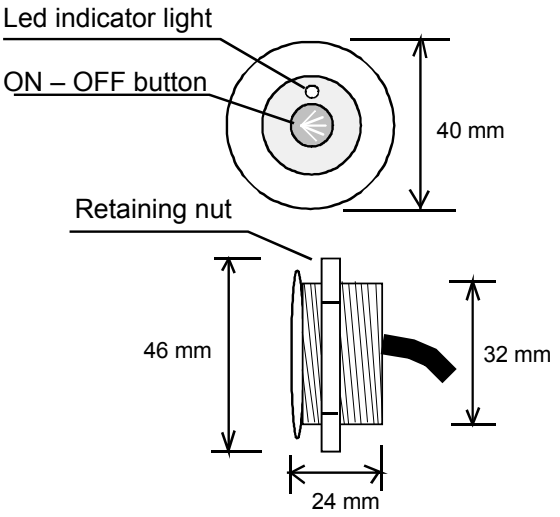
¤ **Diagnostics.** Relay control. Relay outputs can be controlled separately for troubleshooting purposes.
PIN code 666.
System status. Shows information on control panel status, room temperature, use time, software versions.
Heaternet – node list. Shows bus communication information between the control panel and circuit board.
Error log. Shows the last 8 error codes with their date and time. See page 10.

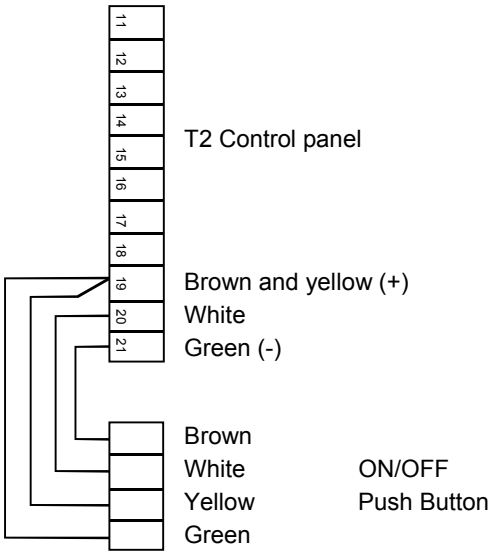
¤ **Reset.** Resets all settings to default values. Code 421.
For instructions see page 7, Reset.

5. External switch function

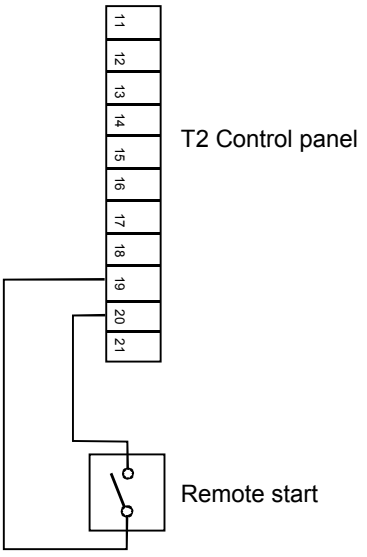
ON/OFF Push Button (Optional)

The sauna heater can be turned on remotely using the ON/OFF push button, for instance from the hotel reception in case of requests for non-scheduled sauna use periods. The LED indicator light on the push button will light up to indicate that the sauna heater has been turned on. As long as the maximum time and temperature have been pre-set on the T2 Control panel, the sauna heater will stay on. If the calendar timer or the 24h timer has been programmed, the LED indicator light on the push button will blink slowly. A fast blinking indicator light signifies that the sauna heater is on Standby (lowered sauna room temperature). If an irregular (non-scheduled) sauna use period is required, the change in the regular program can be effected from the Calendar, the 24 hour timer or the Standby modes.





Push button circuit schematic



Connecting the remote start

Remote start can be implemented with an output make connector information.. The contact signal can be a pulse where the first pulse connects the sauna heater on and the second pulse interrupts the sauna heater control. Alternately, the contact may be closed for the duration of the remote control so that the sauna heater will turn off as the contact opens up.

6. RoHS

Ympäristönsuojeluun liittyviä ohjeita

Tämän tuotteen käyttöiän päätyttyä sitä ei saa hävittää normaalin talousjätteen mukana, vaan se on toimitettava sähkö- ja elektroniikkalaitteiden kierrätykseen tarkoitettuun keräyspisteeseen.

Symboli tuotteessa, käyttöohjeessa tai pakkauksessa tarkoittaa sitä.

Valmistusaineet ovat kierrätettävissä merkintänsä mukaan. Käytettyjen laitteiden uudelleenkäytöllä, materiaalien hydöyntämisellä tai muulla uudelleenkäytöllä teet arvokkaan teon ympäristömme hyväksi.
Tuote palautetaan ilman kiuaskiviä ja verhouskiviä kierrätyskeskukseen.

Tietoa kierrätyspaikoista saat kuntasi palvelupisteestä.

Anvisningar för miljöskydd

Denna produkt får inte kastas med vanliga hushållssopor när den inte längre används. Istället ska den levereras till en återvinningsplats för elektriska och elektroniska apparater.

Symbolen på produkten, handboken eller förpackningen refererar till detta.

De olika materialen kan återvinnas enligt märkningen på dem. Genom att återanvända, nyttja materialen eller på annat sätt återanvända utsliten utrustning, bidrar du till att skydda vår miljö.
Produkten returneras till återvinningscentralen utan bastusten och eventuell täljstensmantel.

Vänligen kontakta de kommunala myndigheterna för att ta reda på var du hittar närmaste återvinningsplats.

Instructions for environmental protection

This product must not be disposed with normal household waste at the end of its life cycle. Instead, it should be delivered to a collecting place for the recycling of electrical and electronic devices.

The symbol on the product, the instruction manual or the package refers to this.

The materials can be recycled according to the markings on them. By reusing, utilising the materials or by otherwise reusing old equipment, you make an important contribution for the protection of our environment. Please note that the product is returned to the recycling centre without any sauna rocks and soapstone cover.

Please contact the municipal administration with enquiries concerning the recycling place.

Hinweise zum Umweltschutz

Dieses Produkt darf am Ende seiner Lebens-Dauer nicht über den normalen Haushaltsabfall Entsorgt werden, sondern muss an einem Sammelpunkt für das Recycling von elektrischen und elektronischen Geräten abgegeben werden.

Das Symbol auf dem produkt, der Gebrauchsanleitung oder der Verpackung weist darauf hin.

Die Werkstoffe sind gemäß ihrer Kennzeichnung wiederverwertbar, Mit der Wiederverwendung, der stofflichen Verwertung oder anderen Formen der Verwertung von Altgeräten leisten Sie einen wichtigen Beitrag zum Schutze unserer Umwelt. Dieses Produkt soll ohne Steine und Specksteinmantel an dem Sammelpunkt für Recycling zurückgebracht werden.

Bitte erfragen Sie bei der Gemeindeverwaltung die zuständige Entsorgungsstelle.